

**ABSTRACT OF THE INVENTION**

The present invention is directed to a radiation curable primary coating composition and an optical fiber with said coating. The primary coating preferably results in excellent mechanical and physical properties, and when coated on optical fibers in a reduction in micro-bending transmission losses over optical fibers with conventional coatings. In one embodiment of this invention, it relates to a coated optical fiber comprising an optical fiber and a radiation cured primary coating wherein the radiation cured primary coating on the optical fiber comprises an oligomer and wherein the oligomer is formed from a reaction comprising a polyol having "m" hydroxyl functional groups, wherein "n" hydroxyl groups of said polyol are terminated in forming the oligomer and "m" is greater than "n".

10055040-042504